



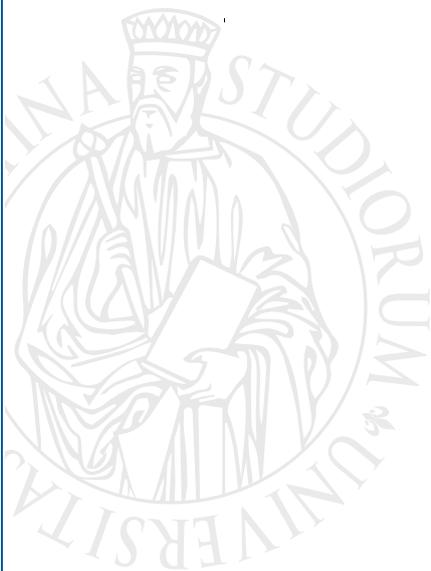
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Economic Uncertainty and Fertility in Europe: Narratives of the Future

Daniele Vignoli, Raffaele Guetto, Giacomo Bazzani,
Elena Pirani, Alessandra Minello



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Daniele Vignoli, Raffaele Guetto, Giacomo Bazzani, Elena Pirani, Alessandra Minello

University of Florence

daniele.vignoli@unifi.it (corresponding author); *raffaele.guetto@unifi.it*;
giacomo.bazzani@unifi.it; *elena.pirani@unifi.it*; *alessandra.minello@unifi.it*

Abstract

Background: In the last decade fertility rates have declined in most European countries, and explanations have tended to focus on the rise of economic uncertainty after the Great Recession. The empirical demographic tradition operationalized the forces of economic uncertainty through objective indicators of individuals' labor market situation; for example, holding a temporary contract or being unemployed. However, contemporary European fertility trends are not comprehensively captured by these traditional indicators and statistical models, because fertility decisions are not a mere “statistical shadow of the past”.

Objective: We propose a novel framework on economic uncertainty and fertility. This framework proffers that the conceptualization and operationalization of economic uncertainty needs to take into account that people use works of imagination, producing their own “narrative of the future” – namely, imagined futures embedded in social elements and their interactions. Narratives of the future allow people to act *according to* or *in spite of* the uncertainty they face, irrespective of structural constraints and their subjective perceptions.

Contribution: In this reflection we suggest that the focus of contemporary fertility studies should partly shift to assessing how people build their narratives of the future. To this end, we propose several methodological strategies to empirically assess the role of narratives for fertility decisions. Future studies should also take into account that personal narratives are shaped by the “shared narratives” produced by several agents of socialization, such as parents and peers, as well as by the narratives produced by the media and other powerful opinion formers.

Acknowledgments

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1. Introduction

Contemporary Europe is facing a new fertility winter. In 2010, the already low fertility rates of Southern European countries started to decline again, and in recent years Nordic countries, too, have experienced a dramatic decrease in total fertility. Figure 1 provides a few representative figures for a trend found across many European countries. From a peak of almost two children per woman in 2009, in Norway the Total Fertility Rate (TFR) fell to 1.56 in 2018, the lowest in its history; Finland is facing a similar negative trend, reaching a record-low level of 1.40 in 2018. Scotland, representative of the countries with medium fertility levels, is experiencing a slow but continuous fertility decline, losing approximately 0.30 TFR points in the last decade. France is the only European country with a TFR above 1.8, but there, too, the trend is downwards. In the South of Europe, Italy – but a similar trend is to be found in Spain and Greece – after a fertility rebound at the beginning of the new millennium, is now experiencing a constant fertility decline, with a TFR estimated to be below 1.30 in 2019. Whereas some years ago the literature (prudently) forecast a slight rebound in completed fertility in Northern and Western Europe (Schmertmann et al. 2014), more recent research suggests instead that, at least for Finland, the all-time low period fertility currently observed is not a consequence of accelerating fertility postponement. Rather it is most likely a reflection of a decreasing fertility *quantum* (Hellstrand, Nisén, and Myrskylä 2019).

In this reflection, the central explanation we put forward for this new state of affairs is the rise of economic uncertainty. Fertility decisions are always taken in a condition of *fundamental uncertainty*, a condition in which the effects of present actions cannot be forecast or estimated with any confidence. Nor can the list of possible future outcomes be known with any precision (Beckert and Bronk 2018). However, the increasing speed, dynamics, and volatility of outcomes from globalization, and the new wave of technological change, makes it increasingly difficult for individuals to imagine their future, choose between alternatives, and form strategies (Mills and Blossfeld 2013). This generates a potent additional source of *economic uncertainty*, which, we argue, represents a *game-changer* in contemporary fertility dynamics. We refer to economic uncertainty as the economic side of social actors' status and perception of uncertainty.

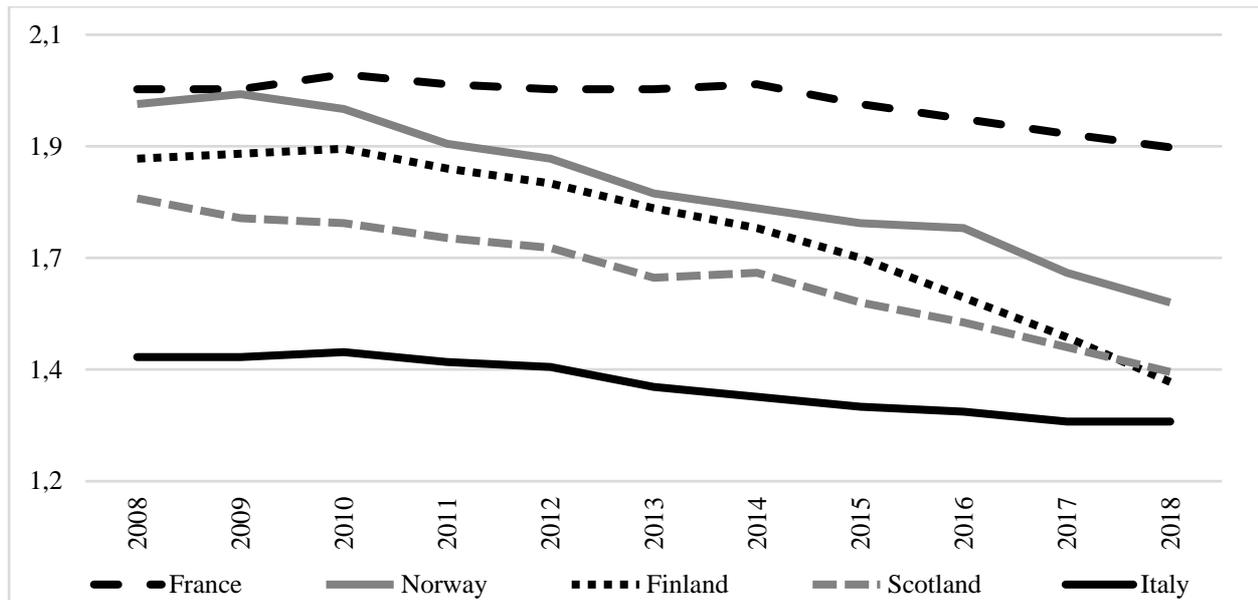
The empirical demographic tradition operationalized the forces of economic uncertainty through objective indicators of individuals' labor market situation, such as holding a temporary contract or being unemployed (Kreyenfeld 2010; Kreyenfeld, Andersson, and Pailhé 2012; Vignoli, Drefahl, and De Santis 2012; Mills and Blossfeld 2013; Kreyenfeld 2015; Busetta, Mendola, and Vignoli 2019; Vignoli, Tocchioni, and Mattei 2019). Nonetheless, although not negligible, their (negative) impact on fertility has been proved not to be of overwhelming importance (Alderotti et al. 2019). Recent

advances also consider subjective measures of employment uncertainty (Kreyenfeld 2010; Bhaumik and Nugent 2011; Hofmann and Hohmeyer 2013; Fahlén and Oláh 2018), and individuals' idiosyncratic preferences and psychological characteristics such as generalized trust, subjective well-being, risk aversion, and time discounting preferences (see, e.g., Gatta et al. 2019; Schmitt 2008; Vignoli, Mencarini, and Alderotti 2019).

A major shortcoming in such operationalisations of economic uncertainty is their “*backwards reasoning*” (Johnson-Hanks et al. 2011: 58): indicators and statistical models take fertility as the result of what already happened in the life course. But fertility decisions, we argue, are not a mere “*statistical shadow of the past*” (Davidson 2010: 17; Beckert and Bronk 2018; Vignoli et al. in press). Economic uncertainty needs rather to be conceptualized and operationalized taking into account that people use works of imagination, producing their own “narrative of the future” – namely, imagined futures embedded in social elements (individuals, organizations, and so forth) and their interactions. These personal narratives of the future are anchored in existing cultural and institutional frames, as well as in public images produced by the media and other powerful opinion formers. Based on socially-constructed perceptions, people build their narratives of the future so as to take decisions in a condition of uncertainty. Narratives of the future allow people to act *according to* or *in spite of* the uncertainty they face, irrespective of structural constraints and their subjective perception.

This paper aims to advance the role of narratives of the future as a decisive lens for understanding the link between economic uncertainty and fertility in contemporary Europe. We concentrate on fertility intentions, but our approach can also be usefully applied to fertility behavior. Fertility intentions follow the desire for childbearing and anticipate concrete behavior by reflecting the combined effect of desired fertility and situational constraints (Thomson and Brandreth 1995; Billari, Philipov, and Testa 2009). Fertility intentions have been generally regarded as a fairly reliable predictor of actual behavior at the individual level (Westoff and Ryder 1977; Rindfuss, Morgan, and Swicegood 1988; Schoen et al. 1999). While an exposition of the Narrative Framework – i.e. the theoretical relations between narratives, uncertainty and fertility – is described elsewhere (Vignoli et al. in press), the present reflection takes a more empirical perspective. It highlights open questions in current fertility knowledge, advances narratives of the future as a novel perspective on economic uncertainty and fertility, and suggests new directions for research.

Figure 1. A few examples of the contemporary fertility winter in Europe



2. Economic uncertainty as a game-changer for fertility dynamics in Europe

2.1 The rise of economic uncertainty: objective or perceived?

The impact of economic uncertainty on demographic behavior has been a centerpiece of the social sciences for over a century. However, a “*harsh new world of economic insecurity*” (Hacker 2019: xvi) only appeared as of the 1980s, due to an array of global transformations often included under the umbrella of “globalization”: the declining importance of national borders for economic transactions; the intensification of worldwide social relations through the information and technology revolution; tougher tax competition between countries accompanied by the deregulation, privatization, and liberalization of domestic industries and markets; not to mention the rising importance of exposure to a volatile labor market (Jameson and Miyoshi 1998; Guillen 2001; Raab et al. 2008; Barbieri and Bozzon 2016). The promises of globalization, such as more competitive prices, wider choice, greater freedom, higher living standards and greater prosperity had also other consequences, however. The best evidence suggests that individuals have become increasingly vulnerable to economic uncertainty, often being trapped into more precarious and lower-quality forms of employment such as fixed-term contracts and involuntary part-time work, or lower occupational standards (Blossfeld and Hofmeister 2006; Blossfeld et al. 2006; Barbieri et al. 2016). The young especially are often viewed as the “losers of globalization” (Mills and Blossfeld 2013) or the emerging “class of precariat” (Standing 2012). The volatile markets and the recent Great Recession – i.e. the global financial, economic, and labor market decline spanning 2007 to 2009 – have fueled the view that globalization is unpredictable

(Grusky et al. 2011) and “out of control” (Mills and Blossfeld 2013). These kinds of conditions of uncertainty are expected to affect family formation, and are now viewed as the primary forces behind the postponement of childbearing and the elimination of higher-order parities in contemporary Europe (Kreyenfeld et al. 2012).

Beyond increasing instability in individuals’ work lives, globalization, and the neo-liberal policies that accompanied it, have also seen an increase in income inequality (OECD 2011). Income inequality has been on the rise since the late 1970s in most Western countries. While they are not the same, inequality and uncertainty are strongly interwoven as rising income inequality may mean reduced intergenerational upward mobility (Barone 2019; Hacker 2019). Compared to previous generations, the young dealing with the globalized labor markets, especially those with a lower socioeconomic background, have lower chances of improving on the level of socioeconomic well-being reached by their parents. According to Easterlin’s hypothesis on the role of “relative affluence” for fertility decisions (1976) – see also sub-section 5.1 – this state of affairs may hinder family plans.

In the last years, trends illustrate that the TFR declined or levelled off in most European countries (Goldstein et al. 2013; Comolli 2017; Tragaki and Bagavos 2019). Altogether, sixteen countries experienced a TFR decline of 0.1 or greater between 2008-11 and 2013. Fertility rates declined not only in those countries and regions that had experienced strong economic downturns and rapid increases in unemployment, such as in Southern Europe. Similar patterns asserted themselves in the Nordic countries, notwithstanding the fact that they experienced, with the exception of Iceland, rather mild economic decline and notwithstanding the fact that they continued to provide extensive welfare and family policies. Analyses that simultaneously include several indicators of economic conjuncture, such as the unemployment rate, the economic policy uncertainty index, the cost of public debt, and the consumer confidence index, do well. They do not, though, explain the entire decline in birth rates in Europe and the US in the period 2008-2013 (Comolli 2017). A recent study by Matysiak, Sobotka and Vignoli (2018), illustrates that the negative effects of declining Gross Domestic Product (GDP) and of rising levels of unemployment and long-term unemployment on fertility were more pronounced during the recession in 2008–2014, than before. This intensification of the influence of economic conditions on fertility during the recession, however, did not result from the fact that Europeans adjust their fertility more strongly to the worsening rather than to the improvement of economic conditions. Along these lines, a recent paper (Buckles, Hungerman, and Lugauer 2018) shows that fertility decline in the US has actually anticipated a number of recessions in the last decades.

Clearly, there is something that drives contemporary European fertility trends that is not captured by traditional economic and labor market indicators. Part of the unexplained fertility decline in the aftermath of the Great Recession can, we would suggest here, be explained by the rise of perceived economic uncertainty. Economic constraints directly affect many families and individuals by lowering their income, but also by fueling general perceptions of uncertainty about future economic conditions (Kreyenfeld 2010; Vignoli, Rinesi and Mussino 2013; Raymo and Shibata 2017), even among those who are not directly affected by massive lay-offs or company bankruptcy (Sobotka, Skirbekk, and Philipov 2011; Hofmann, Kreyenfeld, and Uhlenborff 2017). Notwithstanding the role of emotional factors in driving the economy has been already underlined (the “animal spirits”, Keynes 1936; Akerlof and Schiller 2009), very little attention has been given to the role of perceptions of economic uncertainty at the individual and household level, and to its consequences for fertility in Europe.

2.2 Puzzling European fertility patterns and trends

As highlighted by the recent global economic crisis, important questions on the causes of fertility decline remain unanswered and pose serious challenges to current knowledge on patterns of low, very low, and lowest-low fertility rates in Europe. Beyond structural economic indicators, labor market regulations, welfare regimes, educational systems and gender equality have all been widely used as the key explanatory factors in fertility trends (see Balbo, Billari, and Mills 2013 for a review). While these explanations may account for several cross-country differences in fertility rates, the diffusion of economic uncertainty pose new challenges to current demographic approaches. Let us discuss the cases of the UK, Nordic and southern European countries as examples of different kinds of reactions to rising economic uncertainty.

The UK has long been seen as the clearest example of a European liberal market economy (Esping-Andersen 1999; Thévenon 2011). The forces of globalization would be expected to especially affect the economy of a country with early and large-scale labor market deregulation and a “light” welfare system, compared to other European countries. For instance, the UK exposes its citizens to a high level of labor market instability compared to central (e.g., France, Germany, and Austria) or southern (e.g., Italy, Spain, and Greece) European countries. During the 1980 and 1990s, in West Germany, for instance, youth labor market entrance was found to be more direct and stable than in the UK, thanks to the high job protection and features of the educational system. In the UK, on the other hand, early-career occupational positions were more transitory and the quality of the job match lower (Scherer 2005). This uncertainty was not, however, followed by a considerable gap in Britain’s TFR, which remained stable at about 1.8 children per woman. On the contrary, recent labor market

flexibilization reforms carried out both in Germany and Southern Europe have been linked to a strong postponement of first childbirth (Schmitt 2012; Barbieri et al. 2016). If economic uncertainty represents a crucial force influencing fertility decisions, why is its effect not visible in the UK's fertility trend over the last decades?

As mentioned above, after the onset of the Great Recession the TFR decreased in all EU countries. In southern countries, people reasonably felt a high level of uncertainty in terms of opportunities due to fewer job prospects and less state protection (Matysiak, Sobotka, and Vignoli 2018). These structural forces did not shape up in the same way in Nordic societies. Apart from Iceland, Nordic countries did not experience economic recession or crisis to the same extent as the rest of Europe: their GDP has constantly increased in recent years. However, their TFR decreased after 2009-2010, in a similar fashion to Southern European countries. Norway has switched, in fact, from being the country with one of the highest fertility levels in Europe to average fertility levels. The observed decline in fertility has been unexpected and sharp, and similar changes have been observed in Sweden, Finland, and Denmark (Comolli et al. 2019). What are the driving forces for fertility decline in Nordic countries after a Great Recession that, in "hard numbers", they barely experienced if at all?

More generally, recent trends in TFRs in Europe pose serious challenges to demographic knowledge because contemporary theories failed to foresee the fertility crisis. Contrary to the predictions of Becker's 1993 micro-economic approach and the Second Demographic Transition (SDT) thesis, but in line with McDonald (2000) and Goldscheider, Bernhardt, and Lappegård (2015), Esping-Andersen and Billari (2015) recently suggested that trends toward (lowest-) low fertility should be seen as transitory: it is, according to these authors, the result of increasing female education and labor market participation. In the initial stages of the diffusion of women's new roles in society, fertility rates decline as societies fail to adapt. However, fertility rates would come back to levels close to the replacement threshold as gender equality becomes normative. This would explain why fertility rates have been found to be higher in countries with higher female labor market participation (Ahn and Mira 2002), more egalitarian attitudes toward gender roles (Guetto, Luijkx, and Scherer 2015), or higher Human Development (Myrskylä, Kohler, and Billari 2009). In an updated version of his thesis, Lesthaeghe (2010) recognized that some of the cultural components of the SDT – such as self-actualization and consumption/leisure aspirations – cause a postponement of fertility. But he also pointed out that other components – such as the emancipation of young adults and gender symmetry in daily life – are, instead, related to a recuperation of fertility. In addition, cross-sectional and longitudinal evidence at the country level suggest that higher fertility rates have recently gone hand-in-hand with the diffusion of SDT-related family behaviors such as extra-marital births and marital disruptions (Billari 2004; Prskawetz, Mamolo, and Engelhardt 2009).

It is difficult to evaluate whether the recent European fertility declines described above were mostly driven by the temporary postponement of childbearing during uncertain times or, rather, by a fall in the underlying level (*quantum*) of fertility that will eventually depress the family size of women who were in prime reproductive ages around 2010. Nonetheless, the European post-crisis shift toward very low fertility rates was entirely unexpected, and the strong decrease in fertility in the Nordic countries is even more surprising. After all, these countries have been much less severely hit by the economic crisis than their southern and central European neighbors. But they also represent a benchmark in terms of gender equality and female labor market participation (Esping-Andersen and Billari 2015), youth emancipation (Billari 2004), and the diffusion of new family forms (Lesthaeghe 2010). Another surprising development has been the return to lowest-low fertility rates in Southern Europe. Castiglioni and Dalla-Zuanna (2009) showed that Italy was approaching other Western European countries in terms of the diffusion of cohabitation and divorce, arguing that this was contributing to higher fertility rates, especially in the Centre-North areas. Billari (2008) related the shift toward a “partly unexpected” SDT to higher fertility rates also in the case of Spain. All in all, recent fertility trends represent a challenge for Southern Europe, as countries like Spain and Italy were deemed to have bounced back for good from lowest-low fertility rates (Billari and Dalla-Zuanna 2008). What is driving this new fertility winter?

3. Fertility under conditions of uncertainty: The Narrative Framework

To answer these questions, it is necessary to adopt a novel framework, one in which increasing uncertainty is not necessarily deemed to affect people’s decisions in the same way. For instance, high labor instability seemed not to affect fertility trends in the UK, while these trends do in central or, especially, southern European countries. On the other hand, similar effects may be observed in contexts characterized by very different levels of “structural” economic uncertainty, as in the case of the fertility drops in Nordic and southern European countries following the Great Recession. People may react differently to the same source of uncertainty (e.g. labor market insecurity in liberal or in coordinated economies) or certainty (e.g. the condition of full employment and inclusive welfare in Nordic countries before and after the Great Recession).

Recent advances in economic sociology maintain that economic decisions for long-term investments are taken under conditions of fundamental uncertainty over the future (Bronk and Beckert 2018), and that imaginaries of the future have a central role in decision-making processes (Beckert 2016). Drawing on these contributions, we propose a theoretical framework to investigate the role of imaginaries and narratives in the fertility decision-making process. In the Narrative Framework, expectations, imaginaries and narratives of the future determine fertility decisions together with

structural constraints and past experiences (for more details, see Vignoli et al. in press). When childbearing is planned, typical elements taken into account in the decision process are *structural constraints* such as employment status, income, and housing. Objective conditions alone cannot, however, predict reproductive behavior: with the same income or housing conditions, people may take different fertility decisions. Expectations, imaginaries and narratives play a role. For example, uncertain labor conditions may not be seen as an obstacle to having a child in light of strong expected economic growth; or, they may inhibit fertility in light of expected economic decline (*expectations*). But humans have the capacity to influence the expected future or to deviate from the expected course of action. A wishful future of numerous descendants or a strong belief in the sacredness of family (*imaginaries*) may encourage childbearing even in a condition of low household income, and notwithstanding adverse economic expectations. Of course, a family imaginary may revolve around the desire to remain voluntarily childless, so that structural constraints and expectations only play a marginal role in defining fertility intentions. When imaginaries of the future are associated with a hypothetical course of actions and their causal interconnection, they constitute a (personal) *narrative of the future*. Structural constraints, (economic) expectations and imaginaries contribute to the definition of a narrative of the future driving the fertility decision-making process, where fertility may be chosen despite uncertainty about the future or avoided according to the condition of uncertainty. A narrative of the future can be seen as a powerful “anti-uncertainty device” (Boyer 2018), because it offers individuals the possibility of taking a fertility decision notwithstanding the uncertainty they face. However, this does not imply that personal narratives can only have positive effects on fertility. They may, given a specific set of opportunities and constraints, support the decision to postpone childbearing or, indeed, to not have children at all, something we will discuss in more detail below.

Narratives perform four main functions. They: i) select the key elements of the story and avoid what is considered irrelevant for the events at stake (*selection*); ii) interpret their value and meaning (*interpretation*); iii) connect the elements in a temporal order which identifies the “causes” and “effects” of the action (*causal modelling*); and iv) support the action rationally and emotionally (*action support*). Based on these four functions, narratives provide reasons for action. Irrespective of the extent to which personal narratives of the future may be false or actions questionable, they have the power to reduce world complexity (selection process). Narratives make a given environment more intelligible and actionable (thanks to interpretation and causal modeling) and support the ongoing efforts of dealing with uncertainty (action support). Importantly, the more the decision to be taken has important, long-term effects, e.g. fertility, the more a conscious narrative of the future is needed to help with selection, interpretation, causal modeling and, of course, to support the action.

Personal narratives of the future are often based on “shared” narratives, or the narratives of the future adopted by relevant others such as parents and peers, may also be central to decision-making processes. Shared narratives can be seen as the building blocks of personal narratives, and may stem from cultural preferences transmitted by parents, peers’ influences, but they can also be encountered in the media and popular press. We mentioned how parents represent a fundamental benchmark for children’s fertility decisions, and we will discuss this more in sub-section 5.1. However, the diffusion of (social) media provides increasing opportunities for social interaction among peers, as well as unprecedented access to relevant others’ opinions and experiences, which may influence an individual’s fertility decision-making process (see sub-section 5.2).

In a nutshell, in the Narrative Framework, we posit that fertility decisions under economic uncertainty are not only related to structural constraints (personal status, family policies and economic context), but also to personal narratives of the future. Personal narratives are socially-constructed as they are embedded in existing cultural and institutional frames, as well as being influenced by media narratives.

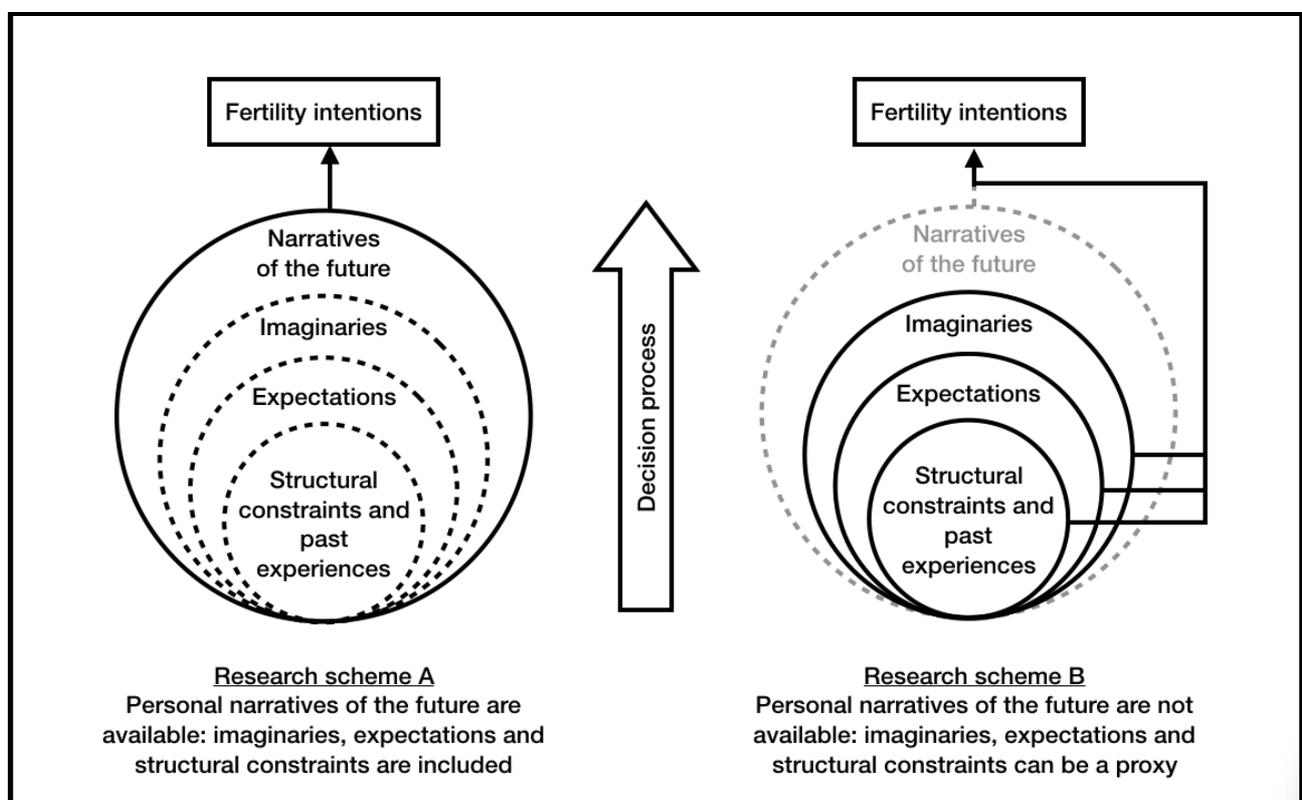
Personal narratives of the future related to fertility intentions may be explored either with surveys, through open and closed questions, or with personal in-depth interviews. Qualitative interviews are likely the most useful tool for investigating the different functions performed by narratives. If personal narratives of the future can be directly investigated by the researcher, it should be possible to disentangle the role of all their constitutive elements (structural constraints, including shared narratives, expectations, and imaginaries) (Figure 2, research scheme A). Respondents might be asked about expectations concerning their labor market career and life course, their family aspirations, as well as the whole system of constraints, limitations, information and steps that actors consider to be relevant for reaching their reproductive goals. In the next section we provide some indications in this respect.

Sometimes personal narratives are not accessible, but relevant information regarding structural constraints, expectations and/or imaginaries is known. In these cases, alternative hypotheses on their weight in the fertility decision-making process can be formulated and empirically tested through quantitative empirical analyses. Imagine, for instance, that prospective indicators of perceived future economic uncertainty – see sub-section 4.2 – as well as objective indicators of individual socioeconomic conditions (e.g. labor contract, income, housing condition, etc.) are available. In these cases, the question of how expectations moderate the influence of the different structural factors can be investigated. Alternatively, if measures of shared narratives are obtainable, such as indicators of the media coverage of economic issues – see sub-section 5.2 – their effects can be contrasted with

those of objective indicators of economic uncertainty. In these cases, the effects of economic expectations and media-channeled shared narratives on individuals' fertility decisions can be interpreted in terms of their influence on the (unavailable) personal narratives of the future (Figure 2, research scheme B).

In the following sections, some indications for the qualitative and quantitative analysis of the role of personal narratives in fertility (intentions) research will be discussed, and examples of shared narratives as building blocks of personal narratives will be introduced.

Figure 2. Research schemes in the Narrative Framework



4. Personal narratives of the future: Prospects for research

4.1 Qualitative analysis

Personal narratives of the future condense and synthesize the effects of structural constraints, expectations and imaginaries. Semi-structured in-depth interviews represent a useful way to grasp the different functions performed by narratives in fertility decision-making (Randall and Koppenhaver

2004). Qualitative interviewing is a common method for the study of narratives in the social sciences¹, but there are still not many examples of its use in studies of the fertility decision-making process (e.g. Bernardi, Klärner and von der Lippe 2008; Mynarska 2010; Bernardi, Mynarska, and Rossier 2015; Bueno and Brinton 2019; Bueno 2019).

In the study of personal narratives of fertility, for the *selection* process, questions can directly focus in on the major sources of concern that inhibit the fertility decision. Or, alternatively, they may indirectly explore the sources of uncertainty and worry about the future. Since the key elements (structural constraints) that influence the fertility decision-making process are identified, their meaning or degree of influence can be explored. The extent to which, for example, uncertain housing may influence a fertility decision is due to subjective *interpretation*. During the analysis of an in-depth interview related to future family plans, the researcher can explore the different sources of uncertainty by looking at the adjectives (e.g., enough/not enough, stable/precarious) attributed to the different elements of the story.

The narrative of the future provides and reflects the contingent plan to reach personal *imaginaries*. For instance, in the case of people with a strong desire to have children, but with still negative short-term fertility intentions, the list of sources of limitations (e.g., precarious job and housing conditions) is usually accompanied with plans to cope with them (e.g., getting a full-time job will allow to rent a better house that will allow to try to have a child). The causal path of the necessary elements and conditions for reaching the imaginary (e.g., to have children) is the *causal modeling* function of narratives (Tuckett 2018). The causal modeling can be explored with direct (e.g., what are the necessary aspects and conditions for you to decide to have a child?) or indirect questions (e.g., what, for you, are the necessary aspects and conditions to have a child?). In an open stream of thought regarding future family plans within a non-scheduled interview, the causal path for reaching the imaginary can be identified *ex-post* during the analysis.

Family formation requires months or years of effort to reach the imagined goal. In the daily routine or in facing unexpected negative events that may arise while going down this path, the family imaginary and the personal narrative of the future provide the necessary emotional resources and commitment. The *action support* function of narratives helps in dealing with negative emotional moments and in building the motivation to act (ibid). This function can be investigated with in-depth interviews. The interviewer can ask about “bad” moments during the family formation process. The

¹ For an introduction see Czarniawska 2004; Elliott 2005; Andrews, Squire, and Tamboukou 2008.

recalling of the imaginaries and narratives of the future that respondents mobilize in these moments shows how narratives may support motivation and a commitment to act.

Qualitative methods also allow for a more open approach to narratives. Unstructured in-depth (or non-scheduled) interviews, in particular, allow interested parties to observe how people describe and frame their situation. It is possible to identify the relevant elements they consider in the fertility decision-making process, and their causal interconnection, in a neutral environment, without predetermined options and with virtually no bias on the side of the researcher (Glaser and Strauss 1967; Strauss and Corbin 1990). Unstructured in-depth interviews on fertility narratives may focus on the relevant moments that influenced the fertility decision. Important decisions, like fertility, are always connected to some specific moments when a complex combination of factors becomes an intelligible narrative of the future that allows for fertility decisions to be taken. The interviewer can ask the respondent to remember a few salient moments that contributed to arriving at the final decision. These key moments can be evoked and narrated by the respondent in his/her own words, salient aspects and related emotions². In this setting, people or factors influencing the fertility decision are not predetermined by the researcher, but they freely emerge in the personal narrative. The interviewer encourages and sustains the dialogue without imposing a particular perspective, but he/she takes care in collecting the necessary elements in reconstructing the personal narrative of the future in these specific key moments for the fertility decision. During the analysis of interviews, relevant factors contributing to the fertility decision will be identified, together with their personal interpretation (Strauss and Corbin 1990)³.

4.2 *The study of narratives in contemporary surveys*

When the aim is to conduct a quantitative analysis for testing the role of uncertain futures in shaping fertility decisions, a necessary starting point is the availability of information about perceived economic *expectations*. Most available surveys, however, only investigate the *current* subjective dimension of economic (in)security, whereas only a few also address the economic (or employment) *prospective* uncertainty, operationalized through a question about the perceived *stability* of the current job in the immediate future (e.g., the next six or twelve months). Beside this, other studies introduce the concept of perceived *resilience* to adverse economic shocks, operationalized through a question about the perceived chances of finding a new job with similar characteristics within a few

² For an example of the use of this method in the study of the decision-making process see Tuckett 2011; Tuckett and Nikolic 2017.

³ In order to reduce the risk of subjective interpretation, data can be analyzed collectively, for example within an interdisciplinary research group.

months should a job be lost. In some cases, respondents are also asked about their prospective financial uncertainty. Moreover, whereas most of the available surveys include economic expectations, in conjunction with or in absence of information concerning fertility, the other constitutive elements of personal narratives of the future, that is imaginaries and shared narratives, are usually not available.

In the following, without claiming to be exhaustive, we go through some national and international surveys which include questions aimed at capturing different dimensions and nuances of uncertainty about future economic prospects. For the exact wording of the questions in each survey, see Appendix A. This review of existing data sources suggests that future data collection programs should make more efforts to include perceived prospective uncertainty together with fertility questions.

From 1994 to 2002, the University of Wisconsin collected data on a sample of American households to examine how Americans perceived their short-term futures in relation to income and jobs (Survey of Economic Expectations, SEE). This survey cannot help current researchers to explore whether and how economic uncertainty affects fertility (no measures of childbearing were included in the survey), but it proved its efficacy in testing novel job-related and financial uncertainty measures. It showed, indeed, how individuals in various demographic, social and economic circumstances have considerably different perceptions of uncertainty (Dominitz and Manski 1997; Manski and Straub 2000). Another study that is worth acknowledging here is the EU-funded research project Psycones (Psychological Contracting across Employment Situations; De Cuyper, Isaksson, and De Witte 2017), which includes several indicators of job, employability and contract expectations looking at the immediate future. These items have been used to study the impact of job insecurity on health and well-being (Höge et al. 2015): there is unfortunately a lack of questions about fertility (intentions). Finally, Eurobarometer – the multi-topic, pan-European surveys undertaken for the European Commission since 1970 – is also worth flagging up. Since the 1990s, the survey investigates the expectations for the future in terms of economic, financial and job situation at the individual level. Moreover, to the best of our knowledge this is the only survey asking for future economic expectations at the national, EU and world level. Again, no measures of fertility are included. SEE, Psycones, and Eurobarometer are nonetheless of primary importance for understanding the relevance of uncertainty – especially its perceptions – in the lives of individuals, providing us with potentially useful questions for future survey planning.

Moving to social surveys including information about fertility, we can count on both longitudinal and cross-sectional surveys. If the data are longitudinal, uncertainty measures can be used to study fertility behavior; if the data are cross-sectional, they can be used as a predictor of fertility intentions. Among

the longitudinal surveys most frequently employed in family and fertility research, there are the German Socio-Economic Panel (G-SOEP), and the British Household Panel Survey (Understanding Society, USoc). Besides collecting “traditional” objective measures of uncertainty (e.g., unemployment episodes), they also ask whether the respondents are worried about their employment or financial situation. Although the measures present in G-SOEP look at the “future” in a vague way, they have been used in empirical analyses as proxies of individual perception of future economic uncertainty (Kreyenfeld 2010, 2015; Bhumik and Nugent 2011); USoc data look, on the other hand, at one-year prospects, and although some recent works addressed the role of uncertainty in individuals’ lives (Berrington 2019), the link with fertility is still under-investigated. Job prospects are also there in the Survey on Household Income and Wealth – SHIW, a biannual panel survey carried out in Italy by the Bank of Italy – and in the Swiss Household Panel (SHP). The SHP has been exploited by a number of scholars, including Hanappi and colleagues (2017) who explored the relationship between changes in employment uncertainty, fertility intentions and their subsequent realizations. HILDA, the survey on Household, Income and Labour Dynamics in Australia, also adds a measure of employability (i.e., resilience) to questions on job uncertainty.

As for cross-sectional surveys, questions that might allow researchers to grasp personal narratives of economic uncertainty can be derived from Trustlab, a project launched by OECD in 2016 in several countries (<https://www.oecd.org/sdd/trustlab.htm>). This project combines, in the Italian version, information on fertility plans in the immediate future and questions about both economic stability and resilience perception (Aassve et al. 2017). In absence of prospective measures of economic uncertainty, measures of present uncertainty have sometimes been used as proxies. For instance, using data from two waves of the European Social Survey (ESS), Fahlén and Oláh (2018) focused on present perceptions of job and income insecurity as a proxy for the future, to predict short-term first childbearing intentions.

In this sub-section we only addressed the research scheme B of Figure 2: *ad-hoc* mixed-method research designs should be implemented in order to survey personal narratives of the future directly, and their functions, in relation to the fertility decision-making process. We will come back to this in the final discussion below.

4.3 The study of narratives of the future with experiments

We conclude this section pointing to an alternative approach to the use of survey data for the quantitative analysis of personal narratives of the future: the experimental one. Experimental research has developed rapidly in the last decades, and many social science questions may be best addressed in this way (Jackson and Cox 2013), especially in the uncertainty framework (Shmaya and Yariv

2016). Several universities and research institutions have made infrastructural investments to support researchers collecting social science data using experiments. In the realm of fertility research, there is the EU-FER project (www.eu-fer.com). One of the pillars of the project is the use of online and laboratory experiments for testing the role of narratives about the future state of the economy in shaping fertility intentions. Briefly, respondents are exposed to stimuli (e.g. mock newspaper stories) to manipulate their perceptions of a critical/positive situation. Then, individuals' fertility plans are measured by asking participants whether they intend to have children in the (near) future. Lab experiments were organized in Italy and Norway, whereas online experiments were carried out in Italy, Norway, Germany, Poland, and the UK; these are countries with different family formation patterns, influenced by different cultural, political and economic circumstances. This comparative design (see e.g. Weber, Hsee, and Sokolowska 1998; Rieger, Wang, and Hens 2014) will highlight similarities across societies and draw out country-specific distinctions on the impact of perceived economic uncertainty on fertility plans.

5. The building blocks of personal narratives of the future

So far we have suggested the importance of shared narratives as crucial building blocks of personal narratives in the relationship between uncertainty and fertility. We now discuss in more detail the role of intergenerational and peers' narratives, and media-channeled narratives.

5.1 Intergenerational and peers' narratives

Much of the existing research focusing on how individuals' experiences of employment uncertainty affect their childbearing plans has a limit: it does not consider that individuals may react very differently based on what they perceive as the *necessary preconditions* for starting a family and for having children. Following Easterlin's hypothesis (1976), these perceptions are influenced by a comparison individuals make between a previous generation's socio-economic well-being and their own levels of the same. Easterlin's original thesis relates to income and claims that "relative affluence" is more important than the absolute level of economic endowments for fertility. That is, income matters for fertility decisions only in relation to individuals' aspirations concerning the minimum acceptable standard of living, ideas which are shaped during socialization. As mentioned above, a young man who entered the labor market during the *Trente Glorieuses* was able to improve on the standard of living he had experienced during childhood. However, increasing income volatility and inequality have made this more difficult for subsequent generations, where young men and women may decide to postpone fertility decisions if their economic resources are perceived as scarce relative to aspirations. Extending Easterlin's line of reasoning to job characteristics other than income, it can be argued that if a generation experienced particularly favorable labor market

conditions – e.g. smooth and predictable school-to-work transition and stable and full-life employment – these conditions will represent the minimum acceptable standard for the children of that generation, notwithstanding increasing structural economic uncertainty.

Social perceptions related to the importance of labor market stability and predictability for childbearing plans are likely to differ substantially across institutional and cultural contexts, though. As noted above, in Anglo-Saxon countries, the employment-protection legislation was much looser than in other European areas already by the mid-1980s (Esping-Andersen 1990). Then, in Conservative and especially Mediterranean European countries, partial and targeted labor market reform contributed to strong labor market segmentation (Polavieja 2003; Barbieri 2011; Cutuli and Guetto 2013). The post-Fordist young facing globalized labor markets in the UK are thus not as likely to feel the same “good-old-time” nostalgia as their Mediterranean counterparts. In the UK young people enter the labor market under the same conditions as incumbent workers. In southern European countries, instead, they are confronted with their older, more protected counterparts.

Beyond the institutionally-driven causes of cross-country heterogeneity in social perceptions, sociocultural factors, too, have to be taken into account. It has been argued, indeed, that family values are related to both the demand for and actual labor market regulations, so that countries with “strong family ties” (Reher 1998) in Mediterranean Europe attach, culturally-speaking, more importance to job protection (Esping-Andersen 1990; Alesina et al. 2015). In addition, in a strong family setting, children are more likely to feel parental pressures concerning their family decisions, first because of the longer stay in the family of origin and the latest-late age at leaving home (Billari 2004). Southern European parents are thus in a stronger position to influence their children’s aspirations concerning a stable and predictable life-cycle. This is a situation that should not apply to other Western European countries, where the influence of peers may be more relevant (Di Giulio and Rosina 2007; Guetto et al. 2016).

To sum up, personal narratives of the future are not simply the products of idiosyncratic preferences and the psychological characteristics of individuals planning their family life in a social vacuum. In fact, they are shaped by culturally and institutionally rooted collective expectations and imaginaries conveyed by parents. However, because of the increasing pervasiveness of internet and social media, parents and previous generations are less likely now to represent the (only) benchmarks as young people form their expectations and aspirations.

5.2 Media-channeled narratives

During the Great Recession, references to economic uncertainty featured prominently in the public discourse. The Great Recession was popularized and spectacularized by a tsunami of news that

avored a simplified narrative of the crisis as the “evil” hanging over contemporary European societies (Cepernich 2012). This is a novelty compared to previous recessions. In the case of the Great Depression of the 1930s, when a rapid surge in unemployment was followed by a drastic drop in fertility (Kiser and Whelpton 1953), economic information was not as widespread as in a digital, globalized age. Another key building block of personal narratives is thus embedded in the role of shared media-channeled narratives. In times of uncertainty, even individuals who had not lost their jobs are worried about layoffs, reduced work hours, and limited job mobility. The reference groups with which individuals compare themselves have expanded globally. Those who had not experienced foreclosure might be reasonably concerned about declining home values and the possibility of falling behind on mortgage payments. In a recent review of the effects of recession on fertility, Sobotka, Skirbekk, and Philipov (2011) emphasized the role of apprehension regarding future negative economic events in shaping fertility. They suggested that individuals’ observations of the broader economic climate, including, crucially, media coverage, might increase uncertainty and negatively affect fertility.

Works in psychology and behavioral economics showed that the anticipation of economic harm can have significant effects on individual decision making (Caplin and Leahy 2001; Loewenstein et al. 2001). In the realm of fertility research, we only located a few examples. A paper estimated the impact that the entry of cable TV had on subjective measures of female autonomy, school enrollment, and fertility (Jensen and Oster 2009). In a similar vein, La Ferrara, Chong, and Duryea (2012) estimated the effect of television on fertility in Brazil. They found that, after introducing time-varying controls and time-invariant area characteristics, the presence of the Globo channel, depresses fertility: Globo is the main producer of soap operas which portray small families. Schneider (2015) examined the effect of area-level economic conditions on state fertility in the years leading up to and including the Great Recession in the United States. She suggested that press coverage comes closer to measuring the sentiments that shape economic uncertainty and that affect fertility decisions more than measures of unemployment and foreclosure.

These examples are suggestive, but there is, as yet, no study of this kind for Europe. Through their coverage, the media tend to set the temperature in Europe and to create images of society. For most citizens, the media represent their major source of information regarding the economic sphere (Joris, d’Haenens, and Van Gorp 2018; Joris, Puustinen, and d’Haenens 2018). Essentially, the media perform the main functions of narratives: not only do the media select the topics they report on (*selection*), they also define the way they cover and frame them with respect to angles, tone, and so forth (*interpretation*). This might affect individuals’ perception of the phenomena that surround them,

and their causal interconnection (*causal modelling*). Finally, media users often join online communities that tend to reinforce their beliefs, acting as echo chambers (*action support*).

The Great Recession and the Euro crisis contributed to the emergence of a European public sphere whose main characteristic has been a pessimistic view of a stagnant, underperforming continent. In addition to this, the rise of xenophobic attitudes related to the ongoing refugee crisis, Euroscepticism (e.g., the long delay to the Brexit process may cast a shadow over both the UK and the rest of Europe), and populism, all fueled by widespread media discourse (Engesser, Fawzi, and Olof Larsson 2017), challenge the emergence of a public sphere promoting social, cultural and political integration. In other words, media coverage has contributed to creating a sense of uncertain futures among European citizens.

The constant overflow of information coming from the media is likely to play an important role in shaping individuals' narratives about their future economic prospects, particularly after the Great Recession. We conclude that more research is needed in addressing the role of media-channeled narratives about economic uncertainty, in addition to material hardship, in the study of fertility dynamics.

6. Concluding remarks

Three simple words (“Whatever it takes”) of the then President of the European Central Bank (ECB), Mario Draghi, proved to be strong enough to debunk global financial speculation against the Euro in 2012. Of course, the ECB was (apparently) prepared to unleash its monetary power but that turned out to be unnecessary: the narrative of the determined attitude of the ECB sufficed. This example shows how actors take decisions considering not only structural constraints, but also shared and personal narratives of the future.

In this reflection we suggest that the focus of contemporary fertility studies should partly shift to assessing: how people build their narratives of the future to act according to or in spite of uncertainty; and, also, how these narratives are (not) related to objective economic constraints and their subjective perception. We do recognize, of course, that individuals differ in their ability to take family decisions under uncertain circumstances based on their preferences and psychological characteristics, such as subjective well-being or risk aversion. Nonetheless, in a context in which (bounded) rational calculations of opportunities and constraints concerning fertility decisions are made difficult by increasing uncertainty, socially-constructed personal narratives of the future may become important frames in channeling individual action. Narratives help people to take decisions, reconciling the core contradictions of an uncertain future, so that they can find a conviction for long-term commitments such as childbearing and parenthood. The building blocks of this kind of personal narratives are not

idiosyncratic factors such as preferences or attitudes: they are deeply embedded in the cultural and social environment, as they are mediated through the shared narratives produced by agents of socialization, such as parents, peers and the media.

Three clarifications regarding the role of narratives are in order, here, as we conclude. First, socially-influenced personal narratives of the future do not necessarily foster fertility: rather, they may suggest solutions to the uncertainty that induce a postponement in family transitions: e.g. parental expectations concerning employment stability and life-course predictability as preconditions for fertility. A similar argument holds for narratives on economic uncertainty conveyed by the media. For instance, in the case of Nordic countries we may expect that, together with apparently positive objective indicators of social and economic context for fertility plans, the emergence of negative shared narratives of the future, related to the rise of global economic uncertainty, may explain the fertility drop.

Second, our arguments do not imply any clash between “structuralist” and “culturalist” explanations for fertility. Our aim is to suggest that the effects of objective economic situations on fertility might be moderated – exacerbated or attenuated – by shared and personal narratives. The systematic relationship between the objective and the subjective dimensions of economic uncertainty – in the form of shared and personal narratives – represents a crucial point to be addressed in future research. For instance, our argument on the role of previous generations and parental narratives does not imply a strictly culturalist explanation for the low fertility of Southern European countries in the last three decades. Rather, we see parental narratives as a complement, not a substitute, for explanations stressing the role of the flexibilization “at the margins” and the sub-protective welfare system characterizing Southern European countries (Barbieri 2011). In the same vein, the level of economic uncertainty narrated in the press and social media is likely to be correlated with underlying levels of unemployment and foreclosure in the area, but it is distinct in capturing online attention for those economic fundamentals. It will be crucial to analyze whether public discourses on the crisis affect childbearing plans over and above the effects of more objective measures such as GDP or the unemployment rate. It will also be interesting to consider whether there are links between indicators of media-channeled uncertainty and aggregate economic measures.

Third, it is worth recalling that fertility analysis should be anchored in life-course research, which is concerned with the inter-linking of different life domains for structuring individual life courses. Fertility choices need to be conceptualized as a succession of transitions (or non-transitions) in one’s life-course (Kravdal 2002). This principle translates into the need to consider each parity progression as a separate phenomenon, and recognizing that often paths into childlessness represent a distinct

process (Mynarska et al. 2015; Miettien et al. 2015). Addressing the economic uncertainty-fertility nexus from a life-course perspective means also recognizing that forms of family behavior are intertwined within individuals and over time: fertility does not occur in isolation, it emerges within relationships. Economic uncertainty may lead to the postponement of marriage or to uncertain relationships (Vignoli, Tocchioni, and Salvini 2016), not just to the postponement/avoidance of fertility. As a corollary, then, fertility careers need to be examined side by side with relationship and partnership careers.

We conclude that more research is needed to address the role of personal and shared narratives in the study of fertility dynamics in the era of uncertainty. Contemporary fertility research should incorporate the notion of narratives in empirical (qualitative and quantitative) analyses. Scientific progress typically depends on the synthesis of conclusions from various sources, and this must surely encourage a variety of approaches. The combination of quantitative results on the shared (peers, parental, and media) narratives with the qualitative results on the personal narratives might allow for a very robust understanding of the influence of narratives of the future in the fertility decision-making process. A focus on narratives of the future will help, we believe, scholars reach a better understanding of the reasons behind the current fertility winter in Europe.

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Appendix A

| Survey | Measure | Question formulation | Fertility information |
|--|--|--|-----------------------|
| SEE – Survey of Economic Expectations | Employment uncertainty | <ul style="list-style-type: none"> - What do you think is the percent chance that you will lose your job during the next 12 months? - What do you think is the percent chance (or chances out of 100) that the job you eventually find and accept would be at least as good as your current job, in terms of wages and benefits? | No |
| | Financial uncertainty | <ul style="list-style-type: none"> - What do you think is the percent chance (or the chances out of 100) that your total household income, before taxes, will be less than Y over the next 12 months? | |
| Psycones | Employment uncertainty | <ul style="list-style-type: none"> - Chances are, I will soon lose my job - I think I might lose my job in the near future - I am sure I can keep my job <p>(For each item: strongly disagree; somewhat disagree; partly agree, party disagree; somewhat agree; strongly agree)</p> | No |
| | Employability (resilience perspective) | <ul style="list-style-type: none"> - I am confident that I could quickly get a similar job - I will easily find another job, if I lose this job - I am optimistic that I will find another job, if I look for one - I can easily switch to another employer, if I wanted to <p>(For each item: strongly disagree; somewhat disagree; partly agree, party disagree; somewhat agree; strongly agree)</p> | |
| | Contract expectations | <p>Only to be asked to non-permanent employees</p> <ul style="list-style-type: none"> - I think I will be employed in this organization for longer than has been agreed in my employment contract - I expect that I will have to leave here once my present employment contract has run out - I think my present employment contract will be renewed when it expires - I have been promised that I will get a permanent contract when my present contract expires <p>(For each item: strongly disagree; somewhat disagree; partly agree, party disagree; somewhat agree; strongly agree)</p> | |
| EURO - BAROMETER | Future expectations | <p>What are your expectations for the next twelve months: will be the next twelve months be better, worse or the same, when it comes to...?</p> <ul style="list-style-type: none"> - Your life in general - The economic situation in (your country) - The financial situation of your household - The employment situation in (your country) - Your personal job situation - The economic situation in the EU - The economic situation in the world | No |

| | | | |
|---|--|---|--|
| G-SOEP – German Socio-Economic Panel | Employment uncertainty | For employed individuals: - How confident are you about your job security? (very concerned, somewhat concerned and not concerned at all) For unemployed individuals: - How confident are you about finding a new job? (easy, difficult and almost impossible) | longitudinal study (fertility history) |
| | Financial uncertainty | - How confident are you about the household's financial prospects? (very concerned, somewhat concerned and not concerned at all) | |
| USoc – Understanding Society | Employment uncertainty | - I would like you to think about your employment prospects over the next 12 months. Thinking about losing your job by being sacked, laid-off, made redundant or not having your contract renewed, how likely do you think it is that you will lose your job during the next 12 months? Is it... Very likely; likely; unlikely; very unlikely | longitudinal study (fertility history) |
| | Financial uncertainty | - Looking ahead, how do you think you will be financially a year from now, will you be... better off; worse off than now; about the same | |
| SHP – Swiss Household Panel | Employment uncertainty | - Would you say that your job is very secure, quite secure, a bit insecure, or very insecure? - How do you evaluate the risk of becoming unemployed in the next 12 months? | longitudinal study (fertility history) |
| SHIW – Italian Survey on Household Income and Wealth | Employment uncertainty | - How likely is it, according to you, that you will keep that job for the next 12 months? (answer '0' if will certainly not be working and '100' if certain be working). | longitudinal study (fertility history) |
| HILDA – Household, Income and Labour Dynamics in Australia | Employment uncertainty | For employed individuals: - I would like you to think about your employment prospects over the next 12 months. What do you think is the percent chance that you will lose your job during the next 12 months? (By loss of job, I mean getting fired, being laid off or retrenched, being made redundant, or having your contract not renewed) For not employed individuals: - I would like you to think about your employment prospects over the next 12 months. What do you think is the percent chance you will find a suitable job during the next 12 months? | longitudinal study (fertility history) |
| | Employability (resilience perspective) | - If you were to lose your job during the next 12 months, what is the percent chance that the job you eventually find and accept would be at least as good as your current job, in terms of wages and benefits? | |
| Trustlab | Employment uncertainty | - How likely do you think it is that you will still have a job in 6 months (if you have one now)? (from very unlikely to very likely, on a 0 –10 scale) | Fertility intentions (Italy only) |
| | Employability (resilience perspective) | - If you were to lose your job, how likely is it that you would find a job with a similar salary within 6 months? (from very unlikely to very likely, on a 0 – 10 scale) | |

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|-------------------------------------|-----------------------|--|----------------------|
| | Financial uncertainty | - When it comes to the financial situation of your household, what are your expectations for the 12 months to come, will the next 12 months be better, worse, or the same? | |
| ESS – European Social Survey | Present job security | - My job is secure (not at all true; a little true; quite true; very true) | Fertility intentions |
| | Financial security | - Which of the following descriptions comes closest to how you feel about your household's income nowadays? (very difficult; difficult; coping on present; living comfortably) | |

